WHAT IS CLAIMED IS:

1. A call admission control method in a mobile communication system, comprising:

determining whether a call arising in the mobile communication system is a voice call or a data call;

checking whether one or more minimum resources are available;

performing a voice call priority guarantee function; and

establishing a maximum supplemental channel (SCH) connection if the call is a data call.

2. The method of claim 1, wherein, if there is no available resource for the voice call, the method further comprises:

generating extra resources by reducing a transmission rate of a data call which has already been connected;

accommodating the voice call with said extra resources; and

for the data call, generating extra resources by, while maintaining a minimum transmission rate of an SCH designated for the data call, reducing the transmission rate of another data call and establishing the maximum SCH connection with said generated extra resources.

3. The method of claim 1, wherein said call admission control process comprises:

confirming that the call that arose in the mobile communication system is a voice call, determining whether there are available modem resources in an FA to be used between a relevant mobile station and a base station, and assigning the FA accordingly;

checking extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly; and

upon completion of the call admission check, assigning resources according to the determined state of resource availability and establishing the connection for a fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call.

4. The method of claim 3, wherein said call admission check comprises:

specifying a transmission rate among QoS parameters to be used in the call admission check as a basic transmission rate of the FCH;

determining whether to conduct admission power control by referring to a database related to call admission control and conducting admission power control accordingly; and

controlling an admission maximum transmission rate so as not to exceed a maximum data rate of a relevant sector/FA by referring to the database related to the call admission control.

5. The method of claim 4, wherein the database related to the call admission control comprises: a forward link power control flag, a forward link power capacity, a forward link minimum data transmission rate, and a forward link maximum transmission rate and wherein the database is adjusted according to relevant cell environments.

6. The method of claim 1, wherein said call admission control process comprises:

confirming that the call that arose in the mobile communication system is a data

call,

determining whether there are available modem resources in an FA to be used between the relevant mobile station and the base station and assigning the FA accordingly;

checking extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly;

upon completion of the call admission check, assigning resources according to the determined state of resource availability and establishing the FCH and the voice call connection between the mobile station and the base station;

conducting call admission control, in which a maximum assignable value for a requested data transmission rate is determined in accordance with call admission control parameters; and

assigning SCH resources at the data transmission rate determined by said call admission control, and establishing the data call connection between the mobile station and the base station.

7. The method of claim 6, wherein said call admission check comprises:

specifying a transmission rate among QoS parameters to be used in the call admission check as a basic transmission rate of the FCH plus a minimum data transmission rate of the forward link in a database related to the call admission control;

determining whether to conduct admission power control by referring to the database related to the call admission control and conducting admission power control accordingly; and

controlling an admission maximum transmission rate so as not to exceed a maximum data rate of a relevant sector/FA by referring to the database related to the call admission control.

8. The method of claim 6, wherein said call admission control comprises:

determining whether to conduct the admission power control by referring to the database related to the call admission control and conducting the admission power control accordingly;

controlling the admission maximum transmission rate so as not to exceed the maximum data rate of the relevant sector/FA by referring to the database related to the call admission control;

controlling minimum SCH transmission rate so that the minimum SCH data transmission rate is assignable by referring to the database related to the call admission control;

checking whether there exists channelization resources that may be assigned and if no relevant channelization resources exist, searching for maximum assignable channelization resources and controlling the channelization code so that such resources may be assigned; and

checking whether assignable modem resources exist and if no relevant modem resources exist, searching for maximum assignable modem resources and controlling the modem so that such resources may be assigned.

9. The method of claim 3, wherein if no available modem resources exist in the FA at which the mobile station made or received a call or if said call admission check fails, said call admission control process further comprises searching for an FA which has a least load and assigning this FA.

10. The method of claim 4, wherein said admission power control comprises:

calculating a total power that is available at a link the mobile station and base station and determining traffic available power that is available as a traffic channel using said total power;

checking whether said traffic available power is not less than an average power of channels multiplied by a user request transmission rate, and examining whether the user request power may be assigned; and

if the user request power cannot be assigned, finding a maximum assignable data rate while reducing said user request transmission rate and thereby determining the minimum transmission rate for the relevant user attempting the assignment.

11. The method of claim 4, wherein said admission maximum transmission rate control comprises:

checking whether a user request transmission rate exceeds a maximum transmission rate of a forward link within the database related to said call admission control, and checking whether it is possible to assign the user request transmission rate;

if the user request transmission rate cannot be assigned, examining whether there are any other active SCH users and determining a minimum transmission rate of the user attempting the assignment;

selecting one user from the user attempting to receive assignment and the other active SCH users and determining said selected user as the user whose transmission rate will be decreased, and then determining a down transmission rate and thereby conducting the user transmission rate down process;

checking again whether the maximum transmission rate of the forward link is exceeded by applying the down transmission rate determined according to said user transmission rate down process; and

if said down transmission rate does not exceed the maximum transmission rate

of the forward link, confirming that the down request is for the selected other active SCH user and performing the requested SCH transmission rate decrease and specifying a finally determined value as the transmission rate to be used by the user.

12. The method of claim 10, wherein said determination of the minimum transmission rate includes: specifying the user request transmission as the minimum transmission rate in case of FCH assignment, by specifying a lesser of the user request transmission rate and the minimum data transmission rate of the forward link among the data related to said all admission control as the minimum transmission rate in case of the SCH initial assignment, or by specifying a currently specified transmission rate as the minimum transmission rate in case of the SCH transmission rate change.

13. A call admission control method in a mobile communication system, comprising:

confirming at a time of a call connection request that a call is a data call request;

determining whether there are available modem resources in an FA to be used between the relevant mobile station and the base station and then assigning the FA accordingly;

checking extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly;

upon the completion of the call admission check, assigning resources according to the determined state of resource availability and thus establishing connection for a fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call;

conducting a call admission control function, in which a maximum assignable value for a requested data transmission rate is determined in accordance with call

admission control parameters; and

assigning SCH (Supplemental Channel) resources at the data transmission rate determined by said call admission control and thus establishing the data call connection between the mobile station and the base station.

14. The method of claim 13, further comprising, at the time of the call connection request, if the call is a voice call:

determining whether there are available modem resources in the FA to be used between the relevant mobile station and the base station and then assigning the FA accordingly;

checking extra capacity in the radio band for the relevant sector/FA and conducting the call admission check accordingly; and

upon the completion of the call admission check, assigning resources according to the determined state of resource availability and thus establishing the connection for the fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call.

15. A method for managing calls in a mobile communication system, comprising:

receiving a voice call;

giving priority of the voice call over a data call; and

allocating resources to simultaneously maintain connection of the voice call and data call with a predetermined minimum Quality of Service for each of the voice call and data call.

16. The method of claim 15, further comprising:

confirming that the received call is a voice call based on information in a predetermined field of an origination message transmitted from a mobile station.

17. The method of claim 16, wherein the predetermined field is a service option field.

18. The method of claim 15, further comprising:

determining whether modem resources exist in a frequency assignment (FA) between a mobile station which transmitted the voice call and a base station; and

assigning the frequency assignment based on the modem resources.

19. The method of claim 18, wherein the frequency assignment is the FA having a greatest amount of modem resources.

20. The method of claim 15, further comprising:

determining whether modem resources are available for establishing connection of the voice call;

if the modem resources are not available, reducing a data transmission rate of the data call to generate available resources; and

establishing connection of the voice call using the available resources generated in the reducing step.

21. The method of claim 20, wherein the data transmission rate of the data call is reduced by one level.

22. The method of claim 21, wherein the receiving, giving, and allocating steps are performed in a base station.

23. A base station in a mobile communication system, comprising:

a modem; and

a processor which gives priority of a voice call over a data call and allocates resources of the modem to simultaneously maintain connection of the voice call and data call with a predetermined minimum Quality of Service for each of the voice call and data call.

24. The base station of claim 23, wherein the processor confirms that the received call is a voice call based on information in a predetermined field of an origination message transmitted from a mobile station.

25. The base station of claim 24, wherein the predetermined field is a service option field.

26. The base station of claim 23, wherein the processor determines whether modem resources exist in a frequency assignment (FA) between a mobile station which transmitted the voice call and a base station and assigns the frequency assignment based on the modem resources.

27. The base station of claim 26, wherein the frequency assignment is the FA having a greatest amount of modem resources.

28. The base station of claim 23, wherein the processor determines whether modem resources are available for establishing connection of the voice call, and if the modem resources are not available, the processor reduces a data transmission rate of the data call to generate available resources and establishes connection of the voice call using the available resources.

29. The base station of claim 28, wherein the processor reduces the transmission rate of the data call by one level.